

National Protection and Programs Directorate
Office of Cyber and Infrastructure Analysis (OCIA)
Infrastructure Impact Assessment

## (U) Hurricane Harvey: Infrastructure Impact Assessment: Transportation Systems, 1930 EDT 25 August 2017

### (U) Assessment

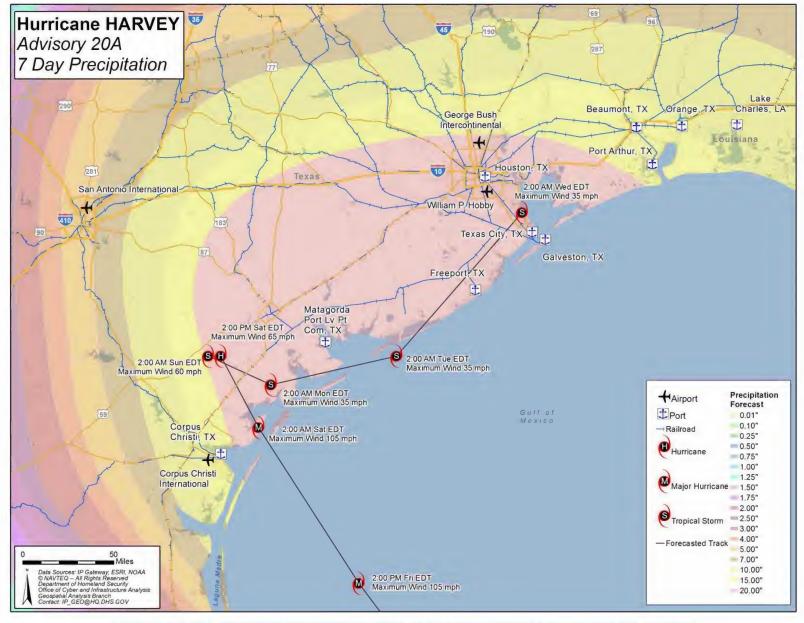
- (U) OCIA assesses that most transportation systems in the affected area will cease operations during the storm and that recovery efforts may take days to weeks, depending on the level of damage and restoration priorities. Transportation disruptions may cause a short-term interruption in local supply chains. Affected supply chains will likely recover as the storm passes, with no long-term impacts to supply chains anticipated.
- (U) Limited-to-moderate physical damage is anticipated to port facilities along the Texas Coast—the center of U.S. imports and exports of crude oil and refined petroleum products. Most port facilities are hardened with berms and flood walls which should protect against storm surge. Seven ports, including the ports of Corpus Christi, Freeport, and Houston, have closed with additional ports potentially closing as the storm moves further north.
- (U) The Coast Guard will survey port waterways following the storm to identify damaged navigational aids and hazardous debris and ensure waterways are clear for vessel traffic. Barge traffic on the Intracoastal Waterway may still be disrupted following the storm due to sediment build-up and debris. Shipping disruptions may be longer than a typical storm because of the likelihood that Hurricane Harvey makes landfall and then heads back into the Gulf of Mexico.
- (U) The Corpus Christi International Airport has been closed and is expected to re-open on 28 August. The George Bush Intercontinental Airport and the William P. Hobby Airport in Houston are experiencing flight delays and cancellations. Potential airport closures are possible as the storm progresses. Airports will reopen once power has been restored and damage to airport facilities has been assessed.
- (U) Flooding could wash out rails, damage rail yards, and take days to weeks to repair. Rail yards prone to flooding have likely been cleared of rail cars. Rail covered by debris will be inoperable until cleared. Freight rail companies will divert trains, localizing any disruptions to freight shipments. Rail yards can operate manually if power is not available.
- (U) Highways and roads may become impassible due to debris or floodwaters. Storm surge and floodwaters can also be heavily damaged and wash out roads and bridges, potentially impacting local traffic for days or weeks following the storm. Flooding on major routes will force traffic onto alternate routes with less capacity, creating the potential for increased congestion.

(U) The below contents are UNCLASSIFIED//FOR OFFICIAL USE ONLY.



(U//FOUO) FIGURE I— HURRICANE HARVEY TRACK

#### (U) The below contents are UNCLASSIFIED//FOR OFFICIAL USE ONLY



(U//FOUO) FIGURE 2—TRANSPORTATION SYSTEMS ASSETS IN HURRICANE HARVEY'S TRACK AS OF 0800 EDT AUGUST 25

OMB Control No.: 1670-0027 Expiration Date: 10/31/2017

#### **UNCLASSIFIED**



National Protection and Programs Directorate

# NPPD Customer Feedback Survey

Product Title: Hurricane Harvey - Transportation Systems (FOLIO)

2. Please rate your satist	te your satisfaction with each of the following:				
	Very Satisfied (5)	Somewhat Satisfied (4)	Neither Satisfied Nor Dissatisfied (3)	Somewhat Dissatisfied (2)	Very Dissatisfied (1
imeliness of product	0	0	0	0	0
Relevance of product	0	0	0	0	0
3 III RZ IGIGIŲRXIXVHIJKIVISI	.RGXFVIQIVXSSRU/R	☑RXUmission?			
Yes No If so, which	products? nts to improve my o		mation or analytic produ security or resiliency effo		
Shared con Yes No If so, which	tents with governme partners?	ent, private sector,	or other partners		
Other uses	(please specify)				
l. Do you have questions	that this product d	idn't answer?			
Yes No (Pleas	e specify)				
5. How could this produc	t be improved?				
6. Would you like to see i	nore on this topic?				
res No (Pleas	e specify)				
7. Are there other topics	or questions you we	ould like to see ad	Idressed by OCIA?		
o help us understand more abo	ut your organization so v	ve can better tailor fut Sector		(OPTIONAL):	
Organization:		Partner Type		SI	UBMIT FORM

Paperwork Reduction Act Compliance Statement